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RAW SEQUENCE LISTING

DATE: 03/05/2003

PATENT APPLICATION: US/09/873,367B

TIME: 12:07:50

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3 <110> APPLICANT: Young, Paul
 4 Soppet, Daniel
 5 Endress, Gregory
 6 Augustus, Meena
 7 Ebner, Reinhard
 8 Carter, Kenneth
 10 <120> TITLE OF INVENTION: Cancer Gene Determination and Therapeutic Screening Using
 Signature Gene
 11 Sets
 13 <130> FILE REFERENCE: 689290-64
 15 <140> CURRENT APPLICATION NUMBER: US/09/873,367B
 15 <141> CURRENT FILING DATE: 2001-06-05
 15 <150> PRIOR APPLICATION NUMBER: U.S. 60/236,891
 16 <151> PRIOR FILING DATE: 2000-09-29
 18 <150> PRIOR APPLICATION NUMBER: U.S. 60/236,842
 19 <151> PRIOR FILING DATE: 2000-09-29
 21 <150> PRIOR APPLICATION NUMBER: U.S. 60/244,867
 22 <151> PRIOR FILING DATE: 2000-11-01
 24 <150> PRIOR APPLICATION NUMBER: U.S. 60/245,084
 25 <151> PRIOR FILING DATE: 2000-11-01
 27 <160> NUMBER OF SEQ ID NOS: 1067
 29 <170> SOFTWARE: PatentIn version 3.0

Does Not Comply
 Corrected Diskette Needed
 pp 1-2, 5-8, 10-16

ERRORED SEQUENCES

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PATENT APPLICATION: US/09/873,367B

DATE: 03/05/2003
TIME: 12:07:51

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DATE: 03/05/2003

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E--> 33234 cgctgcgttc cgccttgcca ggcgacaggt gccatgtgtc tgtaccgtgc 240
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E--> 33240 ctctcttgga aatctcagac ctcaacgagc tcctgaagaa aacgttgaag atccaggatg 420
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nos.

off

↓

nos.

off

RAW SEQUENCE LISTING

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33811 <210> SEQ ID NO: 320
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33814 <213> ORGANISM: Homo sapiens p.10
33816 <400> SEQUENCE: 320

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33879 ccagtcagag gagggctcca attcctgttt agtttgtttc ttttggtgaa tgttccccct 1920
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63332 aggaagggcc tggaaaccaga attgtctgga accctgatct gtaccaactt tagggtcacc 420
63334 ttccagccct gtggatggca gtggaatcag gacactccct tgaacagtga atacgatttt 480
63336 gccctgggtc acattggacg attagaggct gtgagcggct tgtcccaggt ccagctctc 540
E--> 63337 ccctgcataa atttatccct gaggagattc tgattcatgg ccgagacttc 600 590
E--> 63339 cggtgctca gagttggttt tgaggctgga ggcctagagc ctcaggcttt tcaggtgacc 660
E--> 63341 atggccattg tccaagccag agctcagagc aatcaagccc aacagtattc ggggataacc 720
E--> 63343 ctgagcaagg ctggccaggg ttctggctcc agaaaaccac caattcctct catggagaca 780
E--> 63345 gcggaagact ggggagactga gcggaagaag caggcagcca gaggctggag ggtcagcagc 840
E--> 63347 gtcaacgaga ggttcgacgt agccaaccagc ctcccccggt acttctgggt ccctaaccga 900
E--> 63349 attctggaca gtgaggtcag gagagcattt ggccaacttc atcagggccg tggaccggtc 960
E--> 63351 agtgtgatgg ttagggtaat ggctgtggat tagagggtca tgtgggccag ggacatcgtg 1020
E--> 63353 gagggaggaa cctctgtgag gtcagtgtgg gggcaagggt agcgtggagc taggcatttc 1080
E--> 63355 tcccacaatg accctcttct gcccctatgt aagcgttgtt cctggcatca ccctgggggc 1140
E--> 63357 agtgatcttc tccgctgtgg aggtttctat acagccagtg accctaacaa ggaggatatc 1200
E--> 63359 agagcagtgg agttgatgca ccaggctggg cattcagatg ttgtcctggt agacactatg 1260
E--> 63361 gatgagctgc ccagccttgc agatgtccaa cttgccacc tgaggctgag ggcctctgct 1320
E--> 63363 ctgcctgatt catctgtagc tgaggataaa tgctttcagc cctggaagga acacgatggc 1380
E--> 63365 tggactatgt cagggcttgt cttcgaaaag ccagtgcacat ttcagtatta gtgacatcca 1440
E--> 63367 ggttcgttgc tgtaatactt caaggtccg gtgtttctcc tcttccttga ttgtgtctgg 1500
E--> 63369 cagctcctcc agcagtttcc agctgatttt gaattctctg agtttttctt tcttgcctct 1560
E--> 63371 catgacagtg tcagggttcc tgacaccctt accttctctg gaaatacccc ctgggagcgc 1620
E--> 63373 ggaaagcaga gcggacaggt cagtgaactt tatttttgac tcgtgttttt ttttccattg 1680
E--> 63375 agatgtactc tctgaagttt ggtcttgatt tgttttatga gaagtgaagt ctgtgagtgg 1740
E--> 63377 ggagggggag atttattctc attttcagga cgagactttt gccctacatc tttcctagaa 1800
E--> 63379 taagaggtga gaatctcatg atttgtctct agatgtggga ggattgtgtg taaccatcct 1860
E--> 63381 ttttcttgct tctctgttcc agttaaactc ctatacacia gtctacaccc caggatactc 1920
E--> 63383 cagcctccag ctgggaactc ttttaacctg cagctgtctg tctgggactg ggatttacgt 1980
E--> 63385 tatagcaatg cacagatact acaattccag aatcctggct atgaccaga acactgtcca 2040

```

nos.
off

pg 13-14

nos.
off

RAW SEQUENCE LISTING

DATE: 03/05/2003

PATENT APPLICATION: US/09/873,367B

TIME: 12:07:54

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

```

E--> 63387 gattcctggc tccctagacc acagccaagc ttcattggtc ctggaccccc cagttttgtg 2100
E--> 63389 tggctcttct ctagaggagc attgaccccc ctgaatcagc tctgtccttg gcgggacagt 2160
E--> 63391 ccttccctgc tggcagtcct ttctcgttgg ctccctcgac ctgctatctc ctctgaaagc 2220
E--> 63393 tggctgacca ggaatggggt ctccctcac attggggagc ttgcccttta cctccagggc 2280
E--> 63395 tgctgctgcc tgggtatctg ggaccccaga tcaggctctg gagacgctgc tacctgaggg 2340
E--> 63397 gaaggcctga ggtccaggta agaagggaat atagactggg agtgggacaa gggacttgac 2400
E--> 63399 tctgctgaac cagatgaaca ggagctggaa aggcaaggag ctgaagcctc tgggagtcctg 2460
E--> 63401 ggaagtgaag ttctactcct cttggcatca aacaagggtt gggagtgtag gaggtgcggg 2520
E--> 63403 aaagtgcctg tggcttagat taagtggaa ttagggcata gctgaaaggg gaaacagaat 2580
E--> 63405 taaagacacc agaagtagca gagaagcagg gggccagagc tacaacagta ttcttctctg 2640
E--> 63407 ttcctctttg cctcctcccc agatgggcct ctcatctccc acaatctctg gcctccagga 2700
E--> 63409 tgagctatcc catcttcagg agttattacg gaaaggacac caagaatatc tctgaggat 2760
E--> 63411 cactccaaga aaagagatcc acataccatt ctcaatccca ctgaaattgc tggcattctc 2820
E--> 63413 aaaggcaggg cagaggggga tctggggtag agggagggtt ctgtctaatac tttttttttt 2880
E--> 63415 cttttgtatc tgcacttgca gcctcagctt tcatacttca gcccttaagt tcactaagaa 2940
E--> 63417 ggtctgagtt tctgctgcag atagtgggtg taactgctcc aactcttgtc ttgcttagtt 3000
E--> 63419 tctacaaata tttttgcttc ttgtcatttg aaggattaag aaacaaaaac aatccagaaa 3060
E--> 63421 ttgatcgggt tttttaggcc aatcccatcc cttctggata accagatgtt aaatcatgag 3120
E--> 63423 atcagagatg ctgttcatca gtcccaacaa gatggcctag aaatcgcatc ctcacctcgc 3180
E--> 63425 cttgctgctg ctttaattcc aagtctctatt tcttccctta tagttttcta tgggaatgag 3240
E--> 63427 gcggatacag gaaacaccct atctcctctg tatttttgta gtggaatttc tatttaaggg 3300
E--> 63429 gctcattaaa gcatagtatt tatacac 3327
64203 <210> SEQ ID NO: 810
64204 <211> LENGTH: 2602 2592
64205 <212> TYPE: DNA
64206 <213> ORGANISM: Homo sapiens
64208 <400> SEQUENCE: 810
64209 gccgtgtcgc caccatggct ccgcaccgcc ccgcgccgcg gctgctttgc gcgctgtccc 60
64211 tggcgtgtg cgcgtgtcgc ctgccgttcc gcgcggccac tgcgtcgcgg ggggcgtccc 120
E--> 64212 gccccagggg cgggtgcccg aggcgcggcc caacagcatg gtggtggaac 180 170
E--> 64214 accccagatt cctcaaggca gggaaggagc ctggcctgca gatctggcgt gtggagaagt 240
E--> 64216 tcgatctggt gccgtgtccc accaaccttt atggagactt cttcacgggc gacgcctacg 300
E--> 64218 tcatcctgaa gacagtgcag ctgaggaaag gaaatctgca gtatgacctc cactactggc 360
E--> 64220 tgggcaatga gtgcagccag gatgagagcg gggcgccgcg catctttacc gtgcagctgg 420
E--> 64222 atgactacct gaacggcccg gccgtgcagc accgtgaggt ccagggtctc gagtcggcca 480
E--> 64224 ccttcctagg ctacttcaag tctggcctga agtacaagaa aggaggtgtg gcatcaggat 540
E--> 64226 tcaagcacgt ggtaccacaac gaggtggtgg tgcagagact cttccaggtc aaaggcgggc 600
E--> 64228 gtgtggtccg tgccaccgag gtacctgtgt cctgggagag cttcaacaat ggcgactgct 660
E--> 64230 tcatcctgga cctgggcaac aacatccacc agtgggtgtg ttccaacagc aatcggtatg 720
E--> 64232 aaagactgaa ggccacacag gtgtccaagg gcatccggga caacgagcgg agtggccggg 780
E--> 64234 cccgagtgc cgtgtctgag gagggcactg agcccagggc gatgctccag gtgctgggcc 840
E--> 64236 ccaagccggc tctgcctgca ggtaccgagg acaccgcaa ggaggatgcg gccaaccgca 900
E--> 64238 agctggccaa gctctacaag gtctccaatg gtgcagggac catgtccgtc tccctcgtgg 960
E--> 64240 ctgatgagaa ccccttcgcc cagggggccc tgaagtcaga ggactgcttc atcctggacc 1020
E--> 64242 acggcaaaaga tgggaaaatc tttgtctgga aaggcaagca ggcaaacacg gaggagagga 1080
E--> 64244 aggtctccct caaaacagcc tctgacttca tcaccaagat ggactacccc aagcagactc 1140
E--> 64246 aggtctcggc ccttcctgag ggcggtgaga cccactgtt caagcagttc ttcaagaact 1200
E--> 64248 ggcgggaccc agaccagaca gatggcctgg gcttgcctta cctttccagc catatcgcca 1260
E--> 64250 acgtggagcg ggtgcccttc gacgccgcca ccctgcacac ctccactgcc atggccgccc 1320

```

nos.

off

14-15

nos.

off

RAW SEQUENCE LISTING

DATE: 03/05/2003

PATENT APPLICATION: US/09/873,367B

TIME: 12:07:54

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

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E--> 64252 agcacggcat ggatgacgat ggcacaggcc agaaacagat ctggagaatc gaaggttcca 1380
E--> 64254 acaaggtgcc cgtggaccct gccacatatg gacagttcta tggaggcgac agctacatca 1440
E--> 64256 ttctgtacaa ctaccgccat ggtggccgcc aggggcagat aatctataac tggcagggtg 1500
E--> 64258 cccagtctac ccaggatgag gtcgctgcat ctgccatcct gactgctcag ctggatgagg 1560
E--> 64260 agctgggagg taccctgtc cagagccgtg tggccaagg caaggagccc gccacacctca 1620
E--> 64262 tgagcctgtt tggagggaag cccatgatca tctacaagg cgccacctcc cgcgaggggcg 1680
E--> 64264 ggcagacagc ccctgccagc acccgccctct tccaggctccg cgccaacagc gctggagcca 1740
E--> 64266 cccgggctgt tgaggatttg cctaaggctg gtgcaactgaa ctccaacgat gcctttgttc 1800
E--> 64268 tgaaaacccc ctcagccgcc tacctgtggg tgggtacagg agccagcgag gcagagaaga 1860
E--> 64270 cgggggcccc ggagctgctc agggctgctc gggcccaacc tgtgcagggtg gcagaaggca 1920
E--> 64272 gcgagccaga tggcttctgg gaggccctgg gcgggaaggc tgcctaccgc acatccccac 1980
E--> 64274 ggctgaagga caagaagatg gatgcccatc ctctctgcct ctttgcctgc tccaacaaga 2040
E--> 64276 ttggacgttt tgtgatcgaa gaggttcctg gtgagctcat gcagggaagac ctggcaacgg 2100
E--> 64278 atgacgtcat gcttctggac acctgggacc aggtctttgt ctgggttga aaggattctc 2160
E--> 64280 aagaagaaga aaagacagaa gccttgactt ctgctaagcg gtacatcgag acggaccag 2220
E--> 64282 ccaatcgga tcggcggacg cccatcaccg tgggtgaagca aggcctttgag cctccctcct 2280
E--> 64284 ttgtgggctg gttccttggc tgggatgatg attactggtc tgtggacccc ttggacaggg 2340
E--> 64286 ccatggctga gctggctgcc tgaggagggg cagggccccac ccatgtcacc ggtcagtgcc 2400
E--> 64288 ttttggaact gtccttcctc caaaggaggc ttagagcgag cagagcagct ctgctatgag 2460
E--> 64290 tgtgtgtgtg tgtgtgtgtt gtttcttttt ttttttttta cagtatccaa aaatagccct 2520
E--> 64292 gcaaaaattc agagtccttg caaaattgtc taaaatgtca gtgtttggga aattaaatcc 2580
E--> 64294 aataaaaaaca ttttgaagtg tg 2602

70729 <210> SEQ ID NO: 967
70730 <211> LENGTH: 271
70731 <212> TYPE: DNA
70732 <213> ORGANISM: Homo sapiens
70734 <220> FEATURE:
70735 <221> NAME/KEY: misc_feature
70736 <222> LOCATION: (1)...(271)
70737 <223> OTHER INFORMATION: n=a,t,g or c
E--> 70740 <400> SEQUENCE: 967
70741 gatcggtttc gccatcatga cgcagtgtct cccagtggcc ctgtttctccc tggagggtt 60
W- 70742 caccagatg accatntggg ccaagggcaa gcaccgcagc tacctgaagg agttccggga 120
70743 ctaccgccc ctgcgcatgc ccatnatncc ctctctgctc tgagcgctca cccctgctga 180
70744 ggctcagccc ctnaaccgg tggcattctg ggggaggagt ggggccaca gntctccagc 240
70745 acccggaata aagcccgnt gcccagtcg g 271

```

nos.

off

see P. 16 for explanation of error

<210> 967
<211> 271
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(271)
<223> n=a,t,g or c

400> 967

<400>

↑

Insert
opening
bracket

Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

FYI Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/873,367B

DATE: 03/05/2003
TIME: 12:07:56

Input Set : N:\EBONY'S\EP.txt
Output Set: N:\CRF4\03052003\I873367B.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 10

VERIFICATION SUMMARY

DATE: 03/05/2003

PATENT APPLICATION: US/09/873,367B

TIME: 12:07:56

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:49 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:180
M:341 Repeated in SeqNo=1
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:300
M:341 Repeated in SeqNo=2
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:180
M:341 Repeated in SeqNo=3
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:300
M:341 Repeated in SeqNo=6
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:360
M:341 Repeated in SeqNo=7
L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:480
M:341 Repeated in SeqNo=8
L:255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:120
M:341 Repeated in SeqNo=9
L:342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:480
M:341 Repeated in SeqNo=12
L:542 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:540
L:594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:480
L:830 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:120
L:4327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:1440
L:4826 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:0
M:341 Repeated in SeqNo=90
L:5793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99 after pos.:300
L:8017 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:114 after pos.:1080
M:341 Repeated in SeqNo=114
L:8108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115 after pos.:180
L:8146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:117 after pos.:180
L:8165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:118 after pos.:0
M:341 Repeated in SeqNo=118
L:8190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119 after pos.:0
M:341 Repeated in SeqNo=119
L:8223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:180
M:341 Repeated in SeqNo=120
L:8261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122 after pos.:0
M:341 Repeated in SeqNo=122
L:8307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:124 after pos.:0
M:341 Repeated in SeqNo=124
L:8344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125 after pos.:300
M:341 Repeated in SeqNo=125
L:8363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126 after pos.:60
M:341 Repeated in SeqNo=126
L:11260 M:254 E: No. of Bases conflict, LENGTH:Input:1440 Counted:1430 SEQ:159 ✓
M:254 Repeated in SeqNo=159
L:11296 M:252 E: No. of Seq. differs, <211> LENGTH:Input:2520 Found:2510 SEQ:159 ✓
L:12744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:175 after pos.:0
L:12785 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176 after pos.:360

VERIFICATION SUMMARY

DATE: 03/05/2003

PATENT APPLICATION: US/09/873,367B

TIME: 12:07:56

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

L:12860 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:179 after pos.:360
M:341 Repeated in SeqNo=179
L:12883 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:180 after pos.:180
M:341 Repeated in SeqNo=180
L:12922 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:181 after pos.:420
M:341 Repeated in SeqNo=181
L:12949 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:182 after pos.:240
L:14893 M:254 E: No. of Bases conflict, LENGTH:Input:9180 Counted:9170 SEQ:230 ✓
M:254 Repeated in SeqNo=230
L:15081 M:252 E: No. of Seq. differs, <211> LENGTH:Input:14770 Found:14760 SEQ:230 ✓
L:33234 M:254 E: No. of Bases conflict, LENGTH:Input:240 Counted:230 SEQ:313 ✓
M:254 Repeated in SeqNo=313
L:33260 M:252 E: No. of Seq. differs, <211> LENGTH:Input:1008 Found:998 SEQ:313 ✓
L:34022 M:254 E: No. of Bases conflict, LENGTH:Input:6240 Counted:6230 SEQ:320 ✓
M:254 Repeated in SeqNo=320
L:34032 M:252 E: No. of Seq. differs, <211> LENGTH:Input:6492 Found:6482 SEQ:320 ✓
L:54723 M:254 E: No. of Bases conflict, LENGTH:Input:2280 Counted:2270 SEQ:647 ✓
M:254 Repeated in SeqNo=647
L:54901 M:252 E: No. of Seq. differs, <211> LENGTH:Input:7586 Found:7576 SEQ:647 ✓
L:63337 M:254 E: No. of Bases conflict, LENGTH:Input:600 Counted:590 SEQ:790 ✓
M:254 Repeated in SeqNo=790
L:63429 M:252 E: No. of Seq. differs, <211> LENGTH:Input:3327 Found:3317 SEQ:790 ✓
L:64212 M:254 E: No. of Bases conflict, LENGTH:Input:180 Counted:170 SEQ:810 ✓
M:254 Repeated in SeqNo=810
L:64294 M:252 E: No. of Seq. differs, <211> LENGTH:Input:2602 Found:2592 SEQ:810 ✓
L:70740 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:967 differs:966